Species	Habitat or structural component	Presence/Absence (MTNHP Tracker 2011) and Determination
Bald Eagle	River or lake habitat	Bald eagle nests forage and winter along the Big Hole River Valley. Addressed as sensitive species.
Swainson's Hawk	Shrubsteppe, prairies, open woodlands	No detections within the allotments, but some migratory records through the Big Hole Landscape. Livestock grazing is not expected to impact migration. Conversion of grasslands to croplands and insecticide use are the main threats to this species and none of the alternatives in this project include these actions. There appears to be no conflict from any grazing option and management of this species.
Ferruginous Hawk	Dry open country including native prairie, but also shrubsteppe, plains	No detections within the allotments, but some migratory records through the Big Hole Landscape. Livestock grazing is not expected to impact migration. There appears to be no conflict from any grazing option in this proposed project and management of this species.
Peregrine Falcon	Nests on cliffs	This species is not known or expected to occur in the project area. Addressed as sensitive species.
Upland Sandpiper	Prairie grasslands, but also wet and dry meadows, hayfields	This species is not known in the project area as the allotments. There is one non-breeding record of this species in the Big Hole Valley, and migration through the valley is possible. It is ranked S4 (apparently secure) in the Montana Field Guide (MTNHP 2013). Livestock grazing is not expected to impact migration of this species and there appears to be no conflict from any alternatives in this proposed project and management of this species.
Long-billed Curlew	Shortgrass and grazed mixed-grass prairies	As with the upland sandpiper, this is a grassland /native prairie species. Widespread conversion of native short-grass prairie grasslands to agricultural operations and pesticide use has adversely affected populations. It can be found on the valley floors and does migrate through the Big Hole Valley. There are no records of this species within these allotments, which are not classified as short-grass prairie habitat. Livestock grazing is not expected to impact migration of this species through the valley. Grazing as proposed in this project would occur after nesting season. Consequently, adverse impacts from these alternatives to nesting birds are unlikely.
Yellow-billed Cuckoo	Found west of Continental Divide, uses cottonwood willow riparian bottoms	Outside of the range of this species in Montana.
Flammulated Owl	Mature ponderosa pine but also PP/Douglas-fir	Habitat is present however; livestock grazing and range improvements as proposed in the action alternatives are not expected to impact this species or its forested habitat.
Black Swift	Steep cliffs, canyons, nest on rock behind waterfalls	Habitat is present however; livestock grazing and range improvements as proposed in the action alternatives are not expected to impact this species or its habitat. There are no apparent conflicts from any of the alternatives with this species.
Calliope Hummingbird	Open montane forest, meadows, burned areas	The Montana Field Guide (MTNHP 2013) heritage ranking is S5 (secure) which is the most biologically secure heritage ranking possible. Habitat is present and species is known near the allotments in the project area (previously burned areas). However, livestock grazing has not been identified as a threat to this species. According to the Montana Bird Conservation Plan (MTPIF 2000), the Calliope Hummingbird population is increasing in the State. With no vegetation management proposed by any alternatives, there appears to be no conflict from any alternative and management of the Calliope hummingbird.

Species	Habitat or structural component	Presence/Absence (MTNHP Tracker 2011) and Determination
Lewis' woodpecker	Open forest and woodland, and is strongly associated with fire-maintained old-growth ponderosa pine and riparian cottonwood forest.	No detections in the allotments and there are no ponderosa pine or riparian cottonwood forest in the allotments. Livestock grazing and range improvements as proposed in the action alternatives are not expected to impact this species or its forested habitat. Species is not known in the project area and with no vegetation management proposed by any alternatives; there appears to be no conflict from any grazing option and management of the Lewis's Woodpecker.
Williamson's sapsucker	Montane conifer forest as well as aspen woodland	Habitat is present however; livestock grazing and range improvements as proposed in the action alternatives are not expected to impact this species or its forested habitat. There are no apparent conflicts from any of the alternatives with this species.
White-headed woodpecker	Open coniferous and deciduous forest	The Montana Field Guide (MTNHP 2013) notes this woodpecker as an accidental species with a heritage ranking of SNA. This is defined as "Species that arrived in Montana via unknown or uncommon circumstances, which could include weather related events or other migratory disturbances. The term Accidental Species is often assigned to species that have less than 20 verified observations in Montana. Livestock grazing and range improvements as proposed in the action alternatives are not expected to impact this species or its forested habitat.
Olive-sided flycatcher	Montane conifer forest, especially burned areas with snags	Habitat is present however; none of the project alternatives proposes any vegetation treatment. With a secure state heritage ranking across a state-wide landscape that currently supports livestock grazing across all landownerships season-wide, none of the grazing alternatives for the project appear to present conflicts with managing the species.
Willow flycatcher	Dense willow thickets; low, dense, riparian woodland. The shrubs should be 6-7 ft. tall at minimum (MTPIF 2000). Shrub thickets interspersed with openings are used more than large continuous stands of willow. In one study, most nests were found in willow patch size of 20 or more acres; patches 10 acres or less were seldom used (Serena 1982; Harris et al. 1988).	The Montana Field Guide (MTNHP 2013) species account notes a State heritage ranking of S4 (apparently secure). Habitat is present and species has been documented within the allotments. Livestock grazing has the potential to impact this species and its habitat. However, populations have increased in response to reductions in cattle grazing and willow control in riparian areas (Dobkin 1994 in MTPIF 2000). Populations have shown an upward trend in both the Northern Rockies and in Montana (MTPIF 2000). Implementation of the revised Forest Plan (USDA Forest Service 2009) aquatics standards is expected to enhance riparian habitat. While some disturbance to the willow flycatcher can be expected, habitat conditions are expected to improve over time under all alternatives. The no grazing alternative appears to provide the greatest likelihood of improvement. Given the species apparently secure status State-wide in the face of widespread grazing across all ownerships, implementation of any of the grazing alternatives with the accompanying Forest Plan aquatics standards is expected to maintain and improve habitat for the species.

Species	Habitat or structural component	Presence/Absence (MTNHP Tracker 2011) and Determination
Loggerhead shrike	Open areas dominated by grasses and/or forbs, interspersed with shrubs or trees and bare ground-shrub steppe habitat	Suitable habitat for this species is present within the allotments, and in the Big Hole Valley, however this species has not been detected. Conversion of shrub-steppe to agriculture and bioaccumulation of pesticides for insect control are threats to the species. Given the wide general distribution state-wide and the availability of shrub-steppe habitat in the allotments, the shrike could be found in the allotments. None of the alternatives propose any vegetation treatment or habitat conversion to any agricultural use. Consequently, there will be no loss of shrub-steppe habitat available for potential shrike use. None of the alternatives propose any habitat conversion or insecticide use. Consequently, adverse impacts from these alternatives to this species are unlikely.
Sage thrasher	Lower elevation shrubsteppe, sagebrush communities	Habitat is present, however marginal as it is on the upper elevation limit where this species prefers and they have not been documented in the allotments. Livestock grazing can also have a positive effect, depending on the plant community, composition, timing and duration (MTPIF 2000). Analysis of breeding bird data indicates that Sage Thrasher population trends are stable in Montana and the western region (MTPIF 2000). Fragmentation of sage habitat and invasion of non-native plants can negatively impact this species. Fragmentation increases habitat edges which can result in an increase in predation and parasitism. Non-native vegetation can reduce food availability. There will be no habitat conversions of sagebrush in these alternatives. Consequently, adverse impacts from these alternatives to this species are unlikely.
Brewer's sparrow	Shrubsteppe, shortgrass prairie with scattered shrubs	Habitat is present and livestock grazing has the potential to impact this species and its habitat. Reductions in sagebrush cover and vigor from burning or herbicides will reduce or eliminate habitat suitability for the species. Long-term viability of this species in Montana will depend on the maintenance of large stands of sagebrush (PIF 2000). According to the Montana Bird Conservation Plan (PIF 2000), implementing recommendations for sage-grouse should encompass all the needs of brewer's sparrows. See the Greater Sage-grouse analysis for a more detailed effects analysis.
Sage sparrow	Shrubsteppe, especially sagebrush dominated	Habitat is present and livestock grazing has the potential to impact this species and its habitat. However, in Montana this species is not considered a species of conservation concern. Montana Animal Species of Concern are native Montana animals that are considered to be "at risk" due to declining population trends, threats to their habitats, and/or restricted distribution. It is also a MTFWP Conservation Tier III species meaning although important to Montana's wildlife diversity, this species, communities, and focus areas are either: 1) abundant and widespread or are 2) believed to have adequate conservation already in place (Montana Field Guide, MTNHP 2013).

Species	Habitat or structural component	Presence/Absence (MTNHP Tracker 2011) and Determination
McCown's longspur	Shortgrass prairie, heavily grazed mixed-grass prairie	The predominant threat is habitat destruction due to agricultural conversion and development of native prairie habitat. Restriction of fire also reduced available shortgrass prairie. The limited detections in southwest Montana could be related to the relative absence of shortgrass prairie habitat. The allotment areas in particular are shrub-steppe sagebrush habitat. None of the alternatives propose any habitat alteration. With no true shortgrass prairie habitat in the allotments, there is a low likelihood of the species using the project. Therefore, adverse impacts from these alternatives to nesting birds are unlikely.
Black Rosy Finch	Alpine tundra in summer, lower on mountain slopes in winter. Nests in crevices in cliffs and talus among glaciers and snowfields above timberline	Habitat is not present within suitable rangelands within the allotments and no impacts to this species or its high alpine habitat are expected.
Cassin's finch	Open coniferous forests of interior western mountains along with mature forests of lodgepole pine	Habitat is present however; livestock grazing and range improvements as proposed in the action alternatives are not expected to impact this species or its forested habitat.

Northern Rockies Lynx Management Direction

Notes: (1) For those areas identified as occupied lynx habitat in the *Occupied Mapped Lynx Habitat Amendment to the Canada Lynx Conservation Agreement* (USDA Forest Service et al. 2006), management direction are the standards and guidelines displayed below. As stated in the ROD (p. 29) unoccupied forests should consider this management direction. (2) Where superscript numbers (*[43]*) appear, refer to the Glossary in Chapter 5 of the DEIS under Wildlife.

Northern Rockies Lynx Management Direction	**Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).**
ALL MANAGEMENT PRACTICES AND ACTIVITIES (ALL) *The following objectives, standards and guidelines apply to management projects in lynx habitat in lynx analysis units (LAU) and in linkage areas, subject to valid existing rights. They do not apply to wildfire suppression, or to wildland fire use*	
Standard[43] ALL S1 New or expanded permanent developments[33] and vegetation management projects[48] must maintain[26] habitat connectivity[16] *in an LAU[21] and/or linkage area[22].*	**Yes and Met. The locations of new permanent developments in the action alternatives such as fencing and water developments would maintain habitat connectivity. Grazing would maintain habitat connectivity.**
Guideline[15] ALL G1 Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways[18] or forest highways[12] across federal land. Methods could include fencing, underpasses or overpasses.	**No, Not applicable. This project is not constructing highways.**
Standard LAU S1 *Changes in LAU[21] boundaries shall be based on site-specific habitat information and after review by the Forest Service Regional Office.*	**No, Not applicable. This project is not changing LAU boundaries.**
VEGETATION MANAGEMENT PROJETS (VEG) *The following objectives, standards and guidelines apply to vegetation management projects in lynx habitat in lynx analysis units (LAU). With the exception of Objective VEG O3 that specifically concerns wildland fire use, the objectives, standards and guidelines do not apply to wildfire suppression, wildland fire use, or removal of vegetation for permanent developments like mineral operations, ski runs, roads and the like. None of the objectives, standards, or guidelines apply to linkage areas.*	

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Standard VEG S1 – Stand initiation structural stage limits Standard VEG S1 applies to all vegetation management[48] projects that regenerate[37] timber, except for fuel treatment[13] projects within the wildland urban interface (WUI) [49] as defined by HFRA, subject to the following limitation: Fuel treatment projects within the WUI that do not meet Standards VEG S1, VEG S2, VEG S5, and VEG S6 may occur on no more than 6 percent (cumulatively) of lynx habitat on each administrative unit (a unit is a National Forest). For fuel treatment projects within the WUI see guideline VEG G10. **The Standard:** Unless a broad scale assessment has been completed that substantiates different historic levels of stand initiation structural stages[44] limit disturbance in each LAU as follows: If more than 30 percent of the lynx habitat in an LAU is currently in a stand initiation structural stage that does not yet provide winter snowshoe hare habitat, no additional habitat may be regenerated by vegetation management projects.	**No not applicable, this is not a vegetation management project.**
Standard VEG S2 – Limits on regeneration from timber mgmt. projects Standard VEG S2 applies to all vegetation management[48] projects that regenerate[37] timber, except for fuel treatment[13] projects within the wildland urban interface (WUI)[49] as defined by HFRA, subject to the following limitation: Fuel treatment projects within the WUI[49] that do not meet Standards VEG S1, VEG S2, VEG S5, and VEG S6 may occur on no more than 6 percent (cumulatively) of lynx habitat on each administrative unit (a unit is a National Forest). For fuel treatment projects within the WUI[49] see guideline VEG G10. **The Standard:** Timber management projects shall not regenerate[37] more than 15 percent of lynx habitat on NFS lands in an LAU in a ten-year period.	**No not applicable, this is not a vegetation management project.**

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Standard VEG S5 – Precommercial thinning limits Standard VEG S5 applies to all precommercial thinning[35] projects, except for fuel treatment[13] projects that use precommercial thinning as a tool within the wildland urban interface (WUI)[49] as defined by HFRA, subject to the following limitation: Fuel treatment projects within the WUI[49] that do not meet Standards VEG S1, VEG S2, VEG S5, and VEG S6 may occur on no more than 6 percent (cumulatively) of lynx habitat on each administrative unit (a unit is a National Forest). For fuel treatment projects within the WUI[49] see guideline VEG G10. **The Standard:** Precommercial thinning projects that reduce snowshoe hare habitat, may occur from the stand initiation structural stage[44] until the stands no longer provide winter snowshoe hare habitat only: 1. Within 200 feet of administrative sites, dwellings, or outbuildings; or 2. For research studies[38] or genetic tree tests evaluating genetically improved reforestation stock; or 3. Based on new information that is peer reviewed and accepted by the regional levels of the Forest Service and FWS, where a written determination states: a. that a project is not likely to adversely affect lynx; or b. that a project is likely to have short term adverse effects on lynx or its habitat, but would result in long-term benefits to lynx and its habitat; or 4. For conifer removal in aspen, or daylight thinning[5] around individual aspen trees, where aspen is in decline; or 5. For daylight thinning of planted rust-resistant white pine where 80 % of the winter snowshoe hare habitat[50] is retained; or 6. To restore whitebark pine.	**No, Not Applicable. The project is not a precommercial thinning project.**

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Standard VEG S6 – Multi-storied stands & snowshoe hare horizontal cover Standard VEG S6 applies to all vegetation management[48] projects, except for fuel treatment[13] projects within the wildland urban interface (WUI)[49] as defined by HFRA, subject to the following limitation: Fuel treatment projects within the WUI[49] that do not meet Standards VEG S1, VEG S2, VEG S5, and VEG S6 may occur on no more than 6 percent (cumulatively) of lynx habitat on each administrative unit (a unit is a National Forest). For fuel treatment projects within the WUI[49] see guideline VEG G10. **The Standard:** Vegetation management projects that reduce snowshoe hare habitat in multi-story mature or late successional forests[29] may occur only: 1. Within 200 feet of administrative sites, dwellings, outbuildings, recreation sites, and special use permit improvements, including infrastructure within permitted ski area boundaries; or 2. For research studies[38] or genetic tree tests evaluating genetically improved reforestation stock; or 3. For incidental removal during salvage harvest[41] (e.g. removal due to location of skid trails). (NOTE: Timber harvest is allowed in areas that have potential to improve winter snowshoe hare habitat but presently have poorly developed understories that lack dense horizontal cover [e.g. uneven age management systems could be used to create openings where there is little understory so that new forage can grow]).	**No not applicable, this is not a vegetation management project.**
Guideline VEG G1 – Lynx habitat improvement Vegetation management[48] projects should be planned to recruit a high density of conifers, hardwoods, and shrubs where such habitat is scarce or not available. Priority should be given to stem-exclusion, closed-canopy structural stage[44] *stands for lynx or their prey (e.g. mesic, monotypic lodgepole stands).* Winter snowshoe hare habitat[50] should be near denning habitat[6].	**No not applicable, this is not a vegetation management project.**

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Guideline VEG G4 – Prescribed Fire Prescribed fire[34] activities should not create permanent travel routes that facilitate snow compaction. Constructing permanent firebreaks on ridges or saddles should be avoided.	**No not applicable, this is not a vegetation management project.**
Guideline VEG G5 – Habitat for alternate prey species Habitat for alternate prey species, primarily red squirrel[36], should be provided in each LAU.	**No not applicable, this is not a vegetation management project.**
Guideline VEG G10 – Fuel treatments in the WUI *Fuel treatment projects in the WUI[49] as defined by HFRA[17, 48] should be designed considering standards VEG S1, S2, S5, and S6 to promote lynx conservation.*	**No not applicable, this is not a vegetation management project.**
Guideline VEG G11 – Denning habitat *Denning habitat[6] should be distributed in each LAU in the form of pockets of large amounts of large woody debris, either down logs or root wads, or large piles of small wind thrown trees ("jack-strawed" piles). If denning habitat appears to be lacking in the LAU, then projects should be designed to retain some coarse woody debris[4], piles, or residual trees to provide denning habitat[6] in the future.*	**No not applicable, this is not a vegetation management project.**
LIVESTOCK MANAGEMENT (GRAZ) T*he following objectives and guidelines apply to grazing projects in lynx habitat in lynx analysis units (LAU). They do not apply to linkage areas.*	
Guideline GRAZ G1 – Livestock grazing and openings In fire- and harvest-created openings, livestock grazing should be managed so impacts do not prevent shrubs and trees from regenerating.	**Yes, Met. Livestock will be managed in all action alternatives so impacts do not prevent shrubs and trees from regenerating.**
Guideline GRAZ G2 – Livestock grazing and aspen In aspen stands, livestock grazing should be managed to contribute to the long-term health and sustainability of aspen.	**Yes, Met. Livestock grazing in the action alternatives will maintain the long-term health of this species.**

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Guideline GRAZ G3 – Livestock grazing and riparian areas & willow carrs In riparian areas[40] and willow carrs[3], livestock grazing should be managed to contribute to maintaining or achieving a preponderance of mid- or late-seral stages[28] , similar to conditions that would have occurred under historic disturbance regimes.	**Yes, Met. Livestock grazing in the action alternatives will maintain or achieve similar conditions that would have occurred under historic disturbance regimes.**
Guideline GRAZ G4 – Livestock grazing and shrub-steppe habitats In shrub-steppe habitats[42], livestock grazing should be managed in the elevation ranges of forested lynx habitat in LAUs[21], to contribute to maintaining or achieving a preponderance of mid- or late-seral stages, similar to conditions that would have occurred under historic disturbance regimes.	**Yes, Met. Livestock grazing in the action alternatives will maintain or achieve similar conditions that would have occurred under historic disturbance regimes.**
HUMAN USE PROJETS (HU) The following objectives and guidelines apply to *human use projects, such as special uses (other than grazing), recreation management, roads, highways, mineral and energy development, in lynx habitat in lynx analysis units (LAU),* subject to valid existing rights. *They do not apply to vegetation management projects or grazing projects directly. They do not apply to linkage areas.*	
Guideline HU G1 – Ski area expansion & development, inter-trail islands When developing or expanding ski areas, provisions should be made for adequately sized inter-trail islands that include coarse woody debris[4], so winter snowshoe hare habitat[49] is maintained.	**No, Not applicable. This is not a ski area project.**
Guideline HU G2 – Ski area expansion & development, foraging habitat When developing or expanding ski areas, foraging should be provided consistent with the ski area's operational needs, especially where lynx habitat occurs as narrow bands of coniferous forest across mountain slopes.	**No, Not applicable. This is not a ski area project.**

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Guideline HU G3 – Recreation developments Recreation developments and operations should be planned in ways that both provide for lynx movement and maintain the effectiveness of lynx habitat[23].	**No, Not applicable. No recreation developments are planned under the action alternative.**
Guideline HU G4 – Mineral & energy development For mineral and energy development sites and facilities, remote monitoring should be encouraged to reduce snow compaction.	**No, Not applicable. This is not a mineral & energy development project.**
Guideline HU G5 – Mineral & energy development, habitat restoration For mineral and energy development sites and facilities that are closed, a reclamation plan that restores[39] lynx habitat should be developed.	**No, Not applicable. This is not a mineral & energy development project.**
Guideline HU G6 – Roads, upgrading Methods to avoid or reduce effects to lynx should be used in lynx habitat when upgrading unpaved roads to maintenance levels 4 or 5, if the result would be increased traffic speeds and volumes, or a foreseeable contribution to increases in human activity or development.	**No, Not applicable. The action alternative will not upgrade any roads to maintenance level 4 or 5.**
Guideline HU G7 – Roads, locations New permanent roads should not be built on ridge-tops and saddles, or in areas identified as important for lynx habitat connectivity[16]. New permanent roads and trails should be situated away from forested stringers.	**No, Not applicable, no new permanent roads are proposed.**
Guideline HU G8 – Roads, brushing Cutting brush along low-speed[25], low-traffic-volume roads should be done to the minimum level necessary to provide for public safety.	**No, Not applicable. Road brushing is not proposed under the action alternatives.**
Guideline HU G9 – Roads, new On new roads built for projects, public motorized use should be restricted. Effective closures should be provided in road designs. When the project is over, these roads should be reclaimed or decommissioned, if not needed for other management objectives.	**No, Not applicable. No new permanent roads are proposed under the action alternatives.**
Guideline HU G10 – Roads, ski area access *When developing or expanding ski areas and trails, access roads and lift termini to maintain and provide lynx security[10] habitat.*	**No, Not applicable. This is not a ski area project.**

Northern Rockies Lynx Management Direction

Northern Rockies Lynx Management Direction	Is direction applicable to this project and has it been met (Yes or No and Met or Not Met)? Where direction is applicable but has not been met, explain the reason(s).
Guideline HU G11 – Snow compaction Designated over-the-snow routes, or designated play areas, should not expand outside baseline areas of consistent snow compaction[1], unless designation serves to consolidate use and improve lynx habitat. This is calculated on an LAU basis, or on a combination of immediately adjacent LAUs. This does not apply inside permitted ski area boundaries, to winter logging, to rerouting trails for public safety, to accessing private inholdings, or to access regulated by Guideline HU G12. Use the same analysis boundaries for all actions subject to this guideline.	**No, Not applicable. The action alternative does not include any designation of over-the-snow routes, and is not a recreation project.**
Guideline HU G12 – Winter access for non-recreation SUP & mineral & energy development Winter access for non-recreation special uses, and mineral and energy exploration and development, should be limited to designated routes[8] or designated over-the-snow routes[7].	**No, Not applicable. This is not a mineral & energy development or non-recreational special use project.**
LINKAGE AREAS (LINK) The following objective, standard and guidelines apply to *all projects within linkage areas,* subject to valid existing rights.	
Standard LINK S1 – Highway or forest highway construction in linkage areas When highway[18] or forest highway[12] construction or reconstruction is proposed in linkage areas[22], identify potential highway crossings.	**No, Not applicable. This project does not construct highways.**
Guideline LINK G1 – Land exchanges NFS lands should be retained in public ownership.	**No, Not applicable. This project does not include any land exchanges.**
Guideline LINK G2 – Livestock grazing in shrub-steppe habitats *Livestock grazing in shrub-steppe habitats[42] should be managed to contribute to maintaining or achieving a preponderance of mid- or late-seral stages[28], similar to conditions that would have occurred under historic disturbance regimes.*	**Yes, Met. Livestock will be managed in all action alternatives so impacts maintain or achieve conditions similar to that would have occurred under historic disturbance regimes.**

Regional Forester's sensitive species

Common and scientific name	Status	Habitat requirements and local range	Presence/Absence and Effects	Additional analysis?
Gray wolf (*Canis lupis*)	R1 Sensitive	Resident, transient; forests in western Montana; habitat generalist	There are multiple wolf packs in area (Hanauska-Brown et. al 2011). **MAY IMPACT**	**Analyzed further above.**
Greater sage-grouse (*Centrocercus urophasianus)*	USFWS Candidate; R1 Sensitive	Eastern, central, and southwestern Montana in sagebrush, sagebrush-grasslands and associated agricultural lands.	No lek sites within the allotments, however there are multiple leks within the Big Hole Valley and sage-grouse may use the allotments on occasion. **MAY IMPACT**	**Analyzed further above.**
American peregrine falcon (*Falco peregrinus anatum)*	R1 Sensitive	Peregrine falcons nest on cliffs and rock outcrops. They forage anywhere but prefer riparian areas. Foraging may occur at any one of the 38 named lakes in this area.	Peregrine falcons occur on the Forest; however, there are no eyries within or near the allotments. NO IMPACT	Not analyzed further.
Bald eagle (*Haliaeetus leucocephalus*)	R1 Sensitive	Bald eagles nest almost exclusively in live trees usually within 1 mile and in line of sight of a large river or lake.	Bald eagle nests forage and winter along the Big Hole River Valley however, the presence livestock grazing as proposed in the action alternatives are not expected to impact bald eagles. NO IMPACT	Not analyzed further.
Black-backed woodpecker (*Picoides arcticus*)	R1 Sensitive	This species is a primary cavity nesting species that uses areas recently disturbed by fire or mechanisms resulting in an abundance of wood boring insects for prey.	Direct or indirect impacts to the black-backed woodpecker are not expected because there are no vegetation treatments proposed that would impact this species habitat or individuals. NO IMPACT	Not analyzed further.
Flammulated owl (*Otus flammeolus*)	R1 Sensitive	This species is an insectivorous, obligate secondary cavity nester that commonly breeds in ponderosa pine and mixed coniferous forest in western North America.	Direct or indirect impacts to this species are not expected because there is no vegetation treatments proposed that would impact this species habitat or individuals. NO IMPACT	Not analyzed further.
Harlequin duck (*Histrionicus histrionicus*)	R1 Sensitive	Harlequin ducks are summer migrants to south-central Montana and use streams typically more than 4 meters wide, more than 3 percent gradient, with a cobble substrate and with a well-developed riparian vegetation community.	There is no habitat for this species within the allotments and no recorded observations of harlequin ducks. The nearest detections are on the Pintler RD more than 40 miles to the northwest. NO IMPACT	Not analyzed further.
Trumpeter swan (*Cygnus buccinator*)	R1 Sensitive	Trumpeter swans are resident and migratory on the southern end of the Forest, and nesting habitat is associated with lake edge and marshland.	No nesting or winter habitat occurs within the allotments area. Only nesting within the forest is at the Conklin Lake private inholding and on Elk Lake, on the Madison District. NO IMPACT	Not analyzed further.

Regional Forester's sensitive species

Common and scientific name	Status	Habitat requirements and local range	Presence/Absence and Effects	Additional analysis?
Fisher (*Martes pennanti*)	R1 Sensitive	Fishers occur in a variety of low and mid-elevation forested plant communities are associated with moderate to dense forest canopy, are frequently associated with complex forest structure and riparian areas or water west of the Continental Divide in Montana	The allotments are outside the Montana range of the fisher. (Heritage Tracker and Vinkey 2003). NO IMPACT	Not analyzed further.
Spotted bat (*Euderma maculatum*)	R1 Sensitive	The patchy distribution of the spotted bat is thought to be a result of its dependency on rock-faced cliff roosting habitat. It also uses a wide range of habitat for foraging, from montane forests to wooded riparian areas to open desert.	The alternatives would not impact cliff or canyon habitat and is unlikely to impact the distribution or abundance of prey species for the spotted bat. NO IMPACT	Not analyzed further.
Townsend's big-eared bat (*Corynorhinus townsendii*)	R1 Sensitive	This bat uses caves and mines during all stages of its life cycle, but specifically for winter hibernacula and maternity colonies. Large tree cavities and hollow trees are known to be used for day roosts.	The alternatives would not affect caves, mineshafts, tunnels, or abandoned buildings and this species is not known in the project area. NO IMPACT	Not analyzed further.
Northern bog lemming (*Synaptomys borealis*)	R1 Sensitive	This species is primarily associated with sphagnum bogs, wet meadows, moist mixed and coniferous forests and mossy stream sides.	There is one location, Hanby Swamp, located within the allotments that has potential bog lemming habitat. **MAY IMPACT**	**Analyzed further above.**
Great Basin pocket mouse (*Perognathus parvus*)	R1 Sensitive	This species inhabits grasslands, sagebrush/steppe, wooded sites and riparian areas, and typically forages for and caches seeds. Land management designed to maintain a mosaic of sagebrush cover, size, and age classes will benefit this species.	The allotments are outside of the range of the species in of Montana. NO IMPACT	Not analyzed further.
Pygmy rabbit (*Brachylagus idahoensis*)	R1 Sensitive	Pygmy rabbits are typically associated with basin terrain and dense stands of big sagebrush.	This species was found in the project area during surveys. However, loss of habitat through fire, grazing, invasion of exotic annuals, and agricultural conversion is the most significant factor contributing to pygmy rabbit population declines. This project does not propose any activities that would contribute to a loss of sagebrush**.** Rauscher (1997) reports that pygmy rabbits are surviving and even thriving at current grazing levels in certain areas of southwest Montana. **MAY IMPACT**	**Analyzed further above.**

Regional Forester's sensitive species

Common and scientific name	Status	Habitat requirements and local range	Presence/Absence and Effects	Additional analysis?
Bighorn sheep (*Ovis canadensis*)	R1 Sensitive	Bighorn sheep are primarily animals of open habitats, such as alpine meadows, open grasslands, shrub-steppe, talus slopes, rock outcrops, and cliffs; in some places, however, they may use areas of deciduous and conifer forests, especially where openings may have been created by clearcuts or fire.	Bighorn sheep are not currently found in or near the allotment boundaries. NO IMPACT	Not analyzed further.

SW Montana Elk Population Trend 1992-2011

FWP SW MT Elk Mngmt Units (EMU)	1992 Elk Plan SW MT EMU Estimate	2004 Elk Plan SW MT EMU Estimate	BDNF Hunting Districts within SW MT EMUs	2004 FWP State Elk Plan Obj. ± 20%	FWP 2003 Estimate ± 10%	FWP 2006 Estimate ± 10%	FWP 2007 Est. ± 10%	FWP 2008 Est.	FWP 2010 Est.	FWP 2011 Est.
Deerlodge	2350	1879	210	2500	1043	952	1020	1391	1644	2683
Flint Cr	1400	1500	211	600	679	485	262	135	1125	334
Rock Cr	2200	3165	212	850	1100	1074	1494	1825	2504	2693
Sapphire	3500	3500	213	650	401	689	484	660	1325	1243
Highland	1600	1500	214	200	309	270	284	331	400	193
Fleecer	1500	2000	215	1000	736	1144	1234	1502	2145	2569
Gravelly	7000-7500	9000	216	325	457	288	473	140	314	279
Madison	6500-7000	7200	300	700-900	615	1137	1450	1883	806	2129
T-Root	800-900	1350	302	550-700	399	736	956	1195	783	1239
Tendoy	2000	2200	311	2700	2096	3100	3000	2620	2620	2620
Pioneer	3000	1900	318	500	366	383	535	656	519	519
			319	1100 Max	1515	936	819	911	854	1023
			320 333	1000 for both	1130 549	942 470	745 477	954 859	1433	1573
			321	None	No winter elk	No winter elk	No winter elk	No est.	No est.	No est.
			323 324 327 330 Total	Gravelly EMU Total = 7000	8063	6314	5309	6204	At obj.	12,066
			328	550-700	574	650	635	620	643	1008
			329	900 Max	582	683	727	766	partial survey, 273	1190
			331	1400 Max	1250	896	1085	773	869	930
			332	900 Max	506	600	376	588	568	494
			340 350 370	1600 combined for all	219 602 330 (1151)	557 268 192 (1017)	839 500 (1339)	423 529 529 (1481)	1915 for all at objective	340=1164 350=713 370=HD 340
			341	600 Max	669	494	272	166	416	370
			360	2200	4555	1914	1661	2494	1090	1396
			362	2500	1159	3629	3845	3524	4203	4029
Total SW MT EMU Est.	**31,850-32,950**	**35,194**	**TOTAL**	**30,575**	**28,074**	**28,803 *–**	**28,482 –**	**31,925 ↑**	**31,305 –↑**	**42,457 ↑**